

III. CLAIM AMENDMENTS

1. (Currently Amended) A white balance measurement unit for ~~measuring~~ of the respective intensities of ~~illuminating light of~~ at least two light components ~~making up the illuminating light,~~ wherein said ~~colour~~ white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to for ~~generating~~ an electronic measurement signal corresponding to ~~representative of the intensity of at least one of said one of said light components in said illuminating light.~~

2. (Currently Amended) A white balance measurement unit according to claim 1, the unit comprising at least one dedicated LED for each one of said at least two light components, each dedicated LED having a response to a predetermined frequency band corresponding to one of said light components and being arranged to for ~~generating~~ an electronic measurement signal for ~~representative of the intensity of each~~ said one of said light components.

3. (Original) A white balance adjustment device, wherein the device comprises a white balance measurement unit according to claim 1.

4. (Original) A white balance adjustment device according to claim 3, the device comprising:

- an input for receiving at least two electronic colour signals each corresponding to one of said light components, and
- an adjusting means for adjusting proportional strength of said colour signals corresponding to said electronic measurement signals.

5. (Original) A white balance adjustment device according to claim 3, wherein the device has means for controlling an electrical image signal using the electronic measurement signal.

6. (Original) A white balance adjustment device according to claim 3, wherein the device comprises at least one LED that is arranged to be used both for white balance adjustment and for exposure control.

7. (Currently Amended) A recording device for recording an image in an electronic form ~~comprising~~including a white balance adjustment device comprising a white balance measurement unit for ~~measurement of~~measuring ~~of the respective intensityies of illuminating light of~~the respective intensityies of at least two light components ~~making up the illuminating light~~, wherein said white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to ~~for~~generating an electronic measurement signal ~~corresponding to~~representative of the intensity of ~~at least~~said one of said light components ~~in said illuminating light and said recording device comprises a means for capturing an electronic image of an object.~~

8. (Currently Amended) A recording device according to claim 7, wherein the recording device ~~has means for~~is arranged to adjusting balance of at least two colour components of ~~the a~~ captured electronic image on the basis of the measured intensities ~~of illuminating light~~ of at least two light components.

9. (Currently Amended) A recording device according to claim 7, wherein said device is selected ~~for the~~from a group ~~consisting of~~comprising: a digital camera, a video camera, a digital video camera, a TV-camera and a mobile station.

10. (Original) A recording device according to claim 7, wherein at least one LED is arranged to generate an electronic measurement signal at a certain time and to generate light at another time.

11. (Original) A recording device according to claim 7, comprising a mobile telephone.

12. (Currently Amended) A method for white balance measurement ~~comprising the steps of:~~ measuring the respective intensities of at least two light components ~~of illuminating light, the~~ method comprising wherein the measuring of the intensity of at least one of said light components ~~is carried out by using~~ an LED that has a response to a predetermined frequency band corresponding to said light component and which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components.

13. (Currently Amended) A method for white balance adjustment comprising ~~the steps of:~~

- recording an electronic image comprising at least two colour ~~elements~~components,
- measuring the respective intensityies of at least two light components ~~of illuminating light~~, and
- ~~- measuring intensity of at least one of said components by an LED, and~~
- adjusting the balance of ~~the~~said at least at least two colour ~~elements~~components of the electronic image on the basis of the measured intensityies of ~~illuminating light~~ of said at least two light components,

wherein measurement of the intensity of at least one of said at least two light components is performed using an LED that has a response to a predetermined frequency band corresponding to one of said at least two light components and which is arranged to generate an electronic measurement signal representative of the intensity of said one of said at least two light components.

14. (New) A white balance adjustment device including a white balance measurement unit, the white balance measurement unit for measuring the respective intensities of at least two light components, wherein said white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to generate an

electronic measurement signal representative of the intensity of said one of said light components.

15. (New) A digital camera including a white balance measurement unit, the white balance measurement unit for measuring the respective intensities of at least two light components, wherein said white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components.

16. (New) A video camera including a white balance measurement unit, the white balance measurement unit for measuring the respective intensities of at least two light components, wherein said white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components.

17. (New) A digital video camera including a white balance measurement unit, the white balance measurement unit for measuring the respective intensities of at least two light components, wherein said white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to generate an

electronic measurement signal representative of the intensity of said one of said light components.

18. (New) A television camera including a white balance measurement unit, the white balance measurement unit for measuring the respective intensities of at least two light components, wherein said white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components.

19. (New) A mobile station including a white balance measurement unit, the white balance measurement unit for measuring the respective intensities of at least two light components, wherein said white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to generate an electronic measurement signal representative of the intensity of said one of said light components.

20. (New) A mobile telephone including a white balance measurement unit, the white balance measurement unit for measuring the respective intensities of at least two light components, wherein said white balance measurement unit comprises at least one LED that has a response to a predetermined frequency band corresponding to one of said light components and which is arranged to generate an

electronic measurement signal representative of the intensity of said one of said light components.

21. (New) A white balance measurement unit according to claim 1, wherein said at least one LED is arranged to be reverse biased by the application of a voltage source and the electronic measurement signal is arranged to be generated by a current that flows in the LED when connected in reverse bias.

21. (New) A white balance measurement unit according to claim 1, wherein said at least one LED is connected in series with a resistor and arranged to be reverse biased by the application of a voltage across the series connection of the LED and resistor and the electronic measurement signal is arranged to be generated as a voltage measurement across the resistor.

22. (New) A white balance measurement unit according to claim 2, comprising two LEDs one having a response to blue light and being arranged to generate an electronic measurement signal representative of the intensity of a blue light component, the other having a response to red light and being arranged to generate an electronic measurement signal representative of the intensity of a red light component.

23. (New) A white balance measurement unit according to claim 1 further comprising an LED with a response to a light component whose intensity correlates with a total intensity of light and being arranged to generate an electronic measurement signal representative of the total intensity of light.

24. (New) A white balance measurement unit according to claim 23, wherein the LED has a response to green light.

25. (New) A white balance measurement unit according to claim 1, wherein said at least one LED is arranged to generate an electronic measurement signal representative of the intensity of a light component in a first frequency band and to radiate light in a second frequency band different from the first frequency band.

26. (New) A white balance measurement unit according to claim 1, wherein said at least one LED is a discrete LED component.

27. (New) A white balance measurement unit according to claim 1, wherein said at least one LED is part of an integrated circuit.

28. (New) A white balance measurement unit according to claim 1, wherein said at least one LED is integrated onto a printed circuit board.